THE CAT'S WHISKER

BULLETIN OF THE CANADIAN VINTAGE WIRELESS ASSOCIATION

VOLUME 7 NUMBER 3 SEPTEMBER 1977

A.D. CHALLONER Editor

ROGERS DE FOREST CROSLEY

Majestic

the ONLY Radios Licensed to Use METAL Spray TUBES.

IN THIS ISSUE: DeForest Crosley Radio;
Short Wave Beam -1, Part 2

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THE CAT'S WHISKER STAFF

Editor: Dorian Challoner, 29 Grenview Blvd. N., Toronto, Ontario M8X 2J9
Co-editor: Mervin C. Fry, 75 Dunlop St., Richmond Hill, Ont. L4C 2M7
QRK Editor: Bert de Kat (VE3DPB), Box 137 Lynden, Ontario.
Trading Post and Gold Dust Editor: Sid Prior, 102 Parkhurst Blvd., Toronto, Ontario M4G 2E6

NOTE: PLEASE SEND ALL CVWA CORRESPONDENCE TO OUR CAPABLE SECRETARY; ALL BULLETIN NEWS/ARTICLES TO THE EDITOR ;DUES AND ADS TO SID!

Editor's Note

This is your bulletin so it follows that you should have a say in what it contains. Naturally, for those of you out of earshot I can't hear your complaints, or praises. I'm afraid your just going to have to trust the postal system and drop me a note so that I can know what your thinking. For those of you who can make it to the quarterly meetings, or can phone, I'm always open to suggestions. To be sure,articles are always needed and welcome from anyone. For instance, why not send a black&white photo of your favourite set along with a brief technical description or note on its restoration?

To reproduce 'From Sea to Sea' I am afraid the printer's estimate exceeded our annual budget! Other routes are being pursued, however, including an approach to Bell Canada who, as it turns out, originally published this historical booklet on the Diamond Jubilee Broadcast back in 1927.

DUES

October is the month to send the $5 annual dues to Treasurer, Jack Knott 69 Rossburn Dr., Etobicoke, Ont., Canada M9C 2P9 .

DO IT NOW

CVWA ANNUAL MEETING

ELECTION **SPEAKER** **AUCTION**

SATURDAY OCTOBER 22 1:00 pm

110 RUMSEY RD. EAST YORK

PROGRAM

12:00	Equipment for auction is out for preview and cataloguing
1:00	Meeting begins
1:30	Election of executive
2:00	Talk by Andre Nolf 'How to Build Battery Eliminators'
2:45	Break for coffee
3:00	Auction

THE CANADIAN LINK
IN THE BEAM SYSTEM
OCTOBER 1926

The transmitters to be used in the radio-telegraphy link between Canada and Britain were designed by C.S. Franklin of the Marconi Company and designated SWB-1 (Short Wave Beam -1). The beam, of course, was the basis of the system with the directional antennae radiating and receiving within the, then, narrow angle of 8°. This antenna array, together with its rigid co-axial feeder was also due to Franklin.

Canada's SWB-1 was built on site at Drummondville, P.Q. under the supervision of Marconi's chief engineer, R.N. Vyvyan, with tubes, meters, relays, etc. coming from Britain and the angle brass, copper, nuts, bolts and other hardware purchased locally in Montreal. When assembled, SWB-1 consisted of four interconnected panels as illustrated in the last bulletin. The circuit, basically, was oscillator, buffer-amplifier, driver and final.

The final used purpose-designed CAT-2 tubes with oil-cooled plates and air blast cooling for electrode seals. Each tube drew 50 amp filament current with 20 volt applied. Typical I_p would be 1.1 amp with 10KV on the plate. An air-cooled MT9F was driver with an MT-10 as buffer amp. The tubes had a DC filament supply, with the master-oscillators filament being supplied from storage batteries.

Transmitters of this type obtained the 10KV for the final from a filtered, rectified, 300 Hz single-phase supply stepped-up from the 1KV output of a 50KVA rotary-converter. The rectified bank - a separate unit- consisting of sixteen MR7A tubes. The oscillator tubes had a 2KV filtered, rectified, plate supply obtained via transformers from a 1.2 KVA converter supplying 220 volt at 500Hz.

The rectifier tube filaments operated with 11-12 volts stepped-down from the 500 volt output of 20KVA single-phase 300 Hz. rotary-converters. The other tube filaments were supplied from 18KW DC generators which were also used to recharge the storage batteries.

All of these machines could be driven by motors connected to the local electricity supply or were driven by DC motors fed from a 440 volt supply obtained from oil-engine-driven generators.

Because of the "hard" power supply, regulation could be a problem during keying. However, the "absorption" system was used to keep the supply load constant by switching in resistance mats during "space" intervals which dissipated a similar amount of power to that drawn by the tubes during "mark".

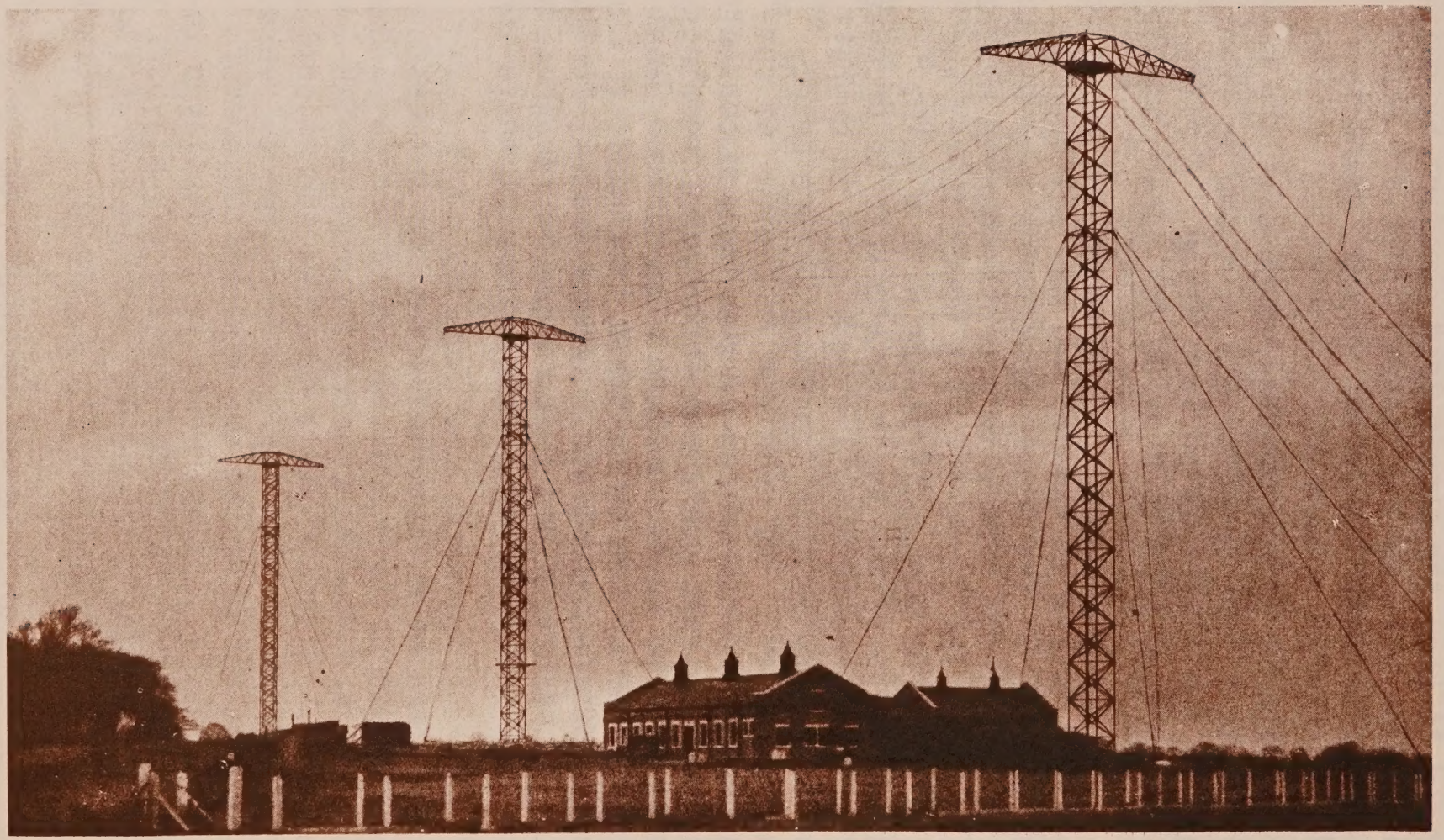
The transmitter's output was monitored with the horn loudspeaker and amplifier-detector-b.f.o. shown in front of the panels in the illustration last issue. A fifth panel was added around 1929 to provide for speech modulation.

The receiver, sited at Yamachiche, was designed by G.A. Mathieu and was of the double-conversion type using amplification throughout (Franklin's cross-coupled neutralisation circuit). The first i.f. was about 187kHz and was amplified by three push-pull stages with a 10kHz bandwidth after which it was again heterodyned to produce 30kHz. A further three push-pull stages with an overall bandwidth of 5kHz handled this frequency before detection and amplification. The receiver is typical of commercial "battleship" construction of the day and consists of about nine units, each contained in copper screening boxes, mounted in iron racks complete with control panel and sundry meters which can be switched in circuit to monitor tube electrode potentials. (Approximately 10 ft. in length, 6 ft. of height and 2 ft. depth is required if you enthusiasts are contemplating adding one of these to your collection.)

Similar systems were installed after the successful trials of the Canada-Britain link, in South Africa, India and Australia and a number of countries purchased SWB-1 type transmitters. Canada's SWB-1 remained operational until 1956 and remained on site for a further twenty years. It has now been re-assembled at the National Museum of Science and Technology, Ottawa, where it is displayed together with a video-tape which the visitor can playback to see come of the problems involved in the transfer of the equipment. A similar transmitter is preserved in Britain's Science Museum.

Material for this article was obtained from Mr. E.A. De Coste at the Ottawa museum, and by referring to articles in the Oct. 1926 issue of 'The Electrician' and to several of the monthly issues of 'Modern Wireless' of 1927.

- Maurice Chaplin



—The Marconi short-wave beam transmitting station built at Grimsby by Marconi's Wireless Telegraph Company, Ltd., for the British General Post Office, for communication with Australia and India.

This view shows the station buildings and masts for the Australian service. The machinery hall is to the left, with transmitter room to the right.

(Photo : Marconi's Wireless Telegraph Co., Ltd.)

DeForest Crosley Story
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Many of our Canadian and some of our American members will have "DeForest Crosley" as well as DeForest and Crosley receivers in their collection. In 1972 our then editor Mike Batsch wondered about the origins of DeForest Crosley and wrote to C.A. Lowry, a Canadian radio pioneer (now deceased). A responsive chord was obviously struck:

"I received your missive dated May 30, 1972. You open a can of very exciting Canadiana! To adequately respond to your request re "DeForest Crosley", it seems prudent to set up some background.

The Pioneers who contributed to the rise and fall of DeForest Crosley were:

(1) Lee DeForest, pioneer holder of sometimes disputed but viable vacuum tube patents.
(2) Powell Crosley, Crosley Mfg. Co. of Cincinnatti Ohio. Pioneer manufacturer of radio receivers.
(3) James Hahn tycoon of the Bren Sun business (John Inglis Co.) in Canada.
(4) Lee Ainsworth, Canadian pioneer in radio Manufacturing.
(5) Ted Rogers, inventor of the 'ac' vacuum tube.

Much has been, and more could be written about these radio pioneers. All of them were my acquaintances and/or friends, in the years between 1920 and 1935. I should, of course, add Dr. Frank Conrad of famous KDKA in Pittsburg who started the whole exciting business when, in 1919 he started broadcasting music from the famous Westinghouse 'experimental' station in Pittsburg.

So much for background. All of this dates back 50 years and, I surmise, I am probably the only one left who knew all of these people rather well. So, bear with me if the years have dimmed my memory on dates. Some of the following dates may not be precise.

About 1920, Lee Ainsworth made a deal with Lee DeForest to build his superheterodyne, batery operated loop antenna equipped 'portable' radio receiver. This outfit used RCA '199' tubes - I now forget how many. In 1922 the writer brought forth his 'Mercury Super Ten' which so greatly outperformed DeForest's set that he started to worry about his future in the radio business.

About 1924 Ted Rogers evolved the ac tube and in cooperation with an American wheeler-dealer set up a patent position on which both RCA and Westinghouse quickly took up patent license options and the ac tube was 'in'. About this time Powell Crosley set up his (existing -ed.) Crosley Mfg. Co. in Cincinnatti to manufacture radio receivers using the new ac tube. Crosley looked at Canada as a market and James Hahn who had financially backed Lee Ainsworth in his DeForest venture, made a deal with Crosley to manufacture his ac receivers in Canada.

The 'DeForest Radio Corporation Ltd.' became the Canadian outlet for Crosley designed sets made wholly in Canada and marketed in Canada under the name ' DeForest Crosley'.

In 1925 the writer, having been convinced that his friend Ted Rogers had a breakthrough with his ac tube, quarrelled with his boss, H.M. Kipp (who refused to 'buy' the ac tube) and left Kipp and joined his old friend Lee Ainsworth as plant engineer at the DeForest Radio Corp. Ltd. which now had a quite extensive radio operation going in the Wrigley building on Carlaw Ave., Toronto. We made as many as 500 sets per day in the years between 1925 and 1932. And when I say we made them I mean just that! We made our own tuning capacitors, our own fixed capacitors, our own transformers and even our own speakers (under Magnavox licence) DeForest Crosley radio receivers were really made wholly in Canada! Incidentally, that has never been done since!

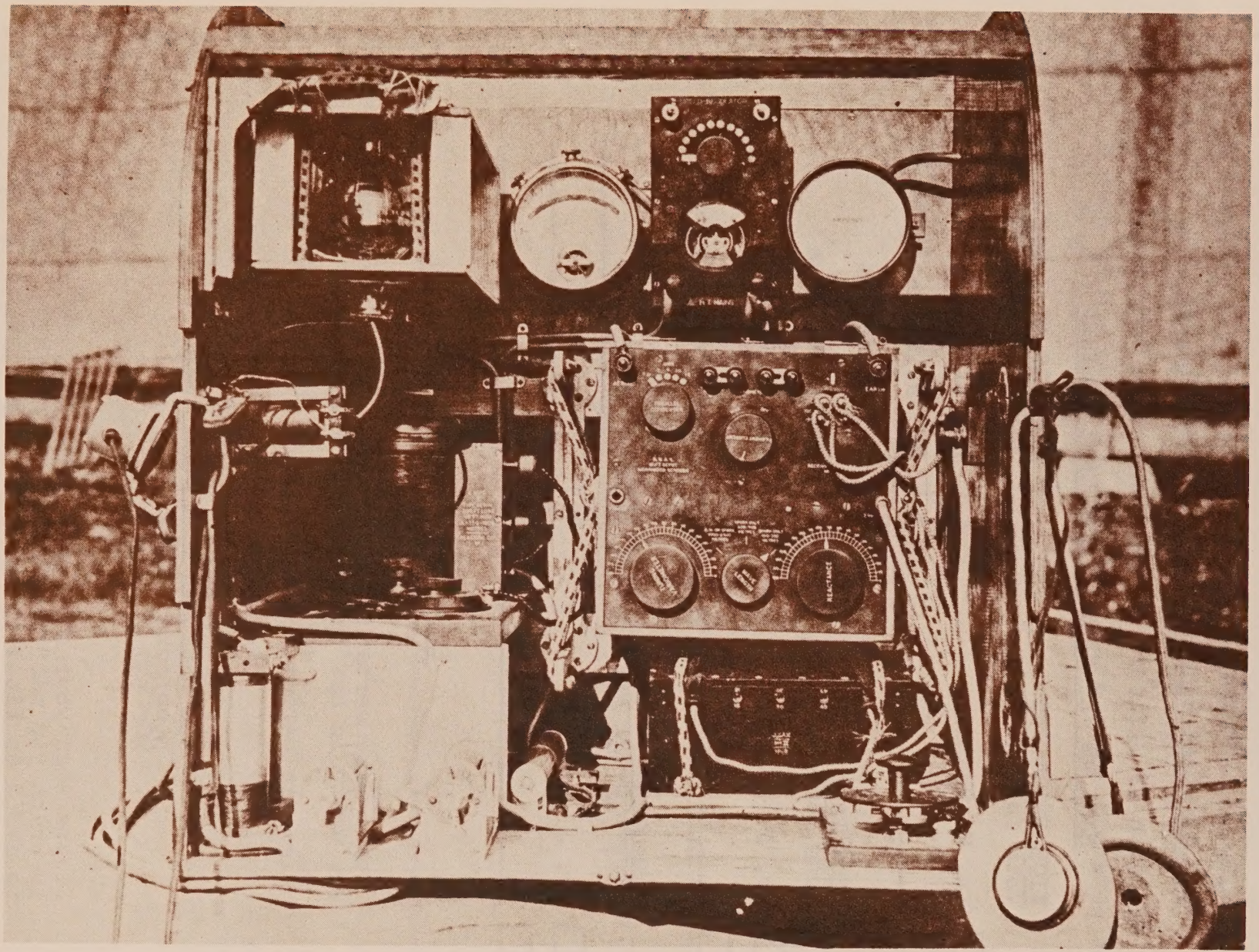
About 1927, 'Jimmy' Hahn who was something of a wheeler-dealer in his own right took out a licence to make Norge refrigerators in Canada. At first he imported Norge units from Borg Warner in the U.S. and had the boxes made by Gen. Steelwares. Also, by now, DeForest Radio Corporation had become a division of Jimmy's 'Consolidated Industries Ltd.' an early, let's say, pioneer of the now popular multi-cartels.

Jimmy Hahn (or his wife , or both) was also a bit of a social climber. As it turned out this was his 'achilles heel'. He was an enthusiastic yachtsman, a top man in Toronto's well known Royal Canadian Yacht Club. So, when Lipton of England, and tea fame, challenged for the America Cup, Jimmy just had to sail his Toronto based yacht to Block Island and be with the 'In' crowd there for the big event. To be 'free' to make this lengthy trip (-he was away for 6 months) he turned management of the business over to his salesmanager.

In late 1928 his sales manager (now a total VIP in the boss's absence) made some very unwise managerial decisions. Also at this time we had the 1929 stock market crash in the U.S. and the depression which followed.

To make a long story short. (Icould write a book about it.) when Jimmy Hahn came home from Block Island his C.I.L. was broke. His doughty 'salesmanager' had gone through 75,000 dollars, cash in 6 months, on foolhardy 'expansion' and although the DeForest Radio Corp. was still making money, the parent C.I.L. carried DeForest into bankruptcy. They paid their creditors 6¢ on the dollar their assets were bought up for a song by Rogers Majestic Ltd. who, for a short time continued to market DeForest Crosley radios (made by Rogers Majestic). It was not too long before Rogers Majestic itself was swallowed up by Grigsby Grunow of Chicago and then, a few years later was again swallowed up by Philips Gloëlampen fabrik Gmb of Holland, (now Philip Electronic Industries of Can. Ltd.)

In the years between 1927 and 1939:



WIRELESS RIG AT VICTORIA BEACH AIR BASE, MANITOBA, C.1923

BALLOT 1977 - 1978

THE CANADIAN VINTAGE WIRELESS ASSOCIATION

Election of Officers for the Executive Committee.

MARK AN "X" NEXT TO THE NAME DESIRED

VICE-PRESIDENT
Vote for one (1)

- ☐ Mr. M. Chaplin
- ☐ _____

SECRETARY
Vote for one (1)

- ☐ Mr. J. Wicks
- ☐ _____

TREASURER
Vote for one (1)

- ☐ Mr. J. Knott
- ☐ _____

MEMBERS AT LARGE
Vote for five (5)

- ☐ Mr. M. Catalano
- ☐ Mr. N. Haughton
- ☐ Mr. B. de Kat
- ☐ Mr. G. Neilson
- ☐ Mr. H. Weber
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

cut here

cut here

IMPORTANT

Please make certain that any candidates whose name you write in has been properly nominated.

Mail this ballot to:

Mr. N. Haughton
440 Rathburn Road, Apt. 506
Etobicoke, Ontario
M9C 3S7

Please sign your name on the back of the envelope in which you mail this ballot. This is necessary to avoid duplication of votes. Failure to do so will invalidate the ballot.

cut here

cut here

THE CANADIAN VINTAGE WIRELESS ASSOCIATION

NOMINATION FOR THE POSITION OF A MEMBER OF THE EXECUTIVE COMMITTEE FOR THE FISCAL YEAR OF 1977 - 1978

I wish to nominate the following person for election to the Executive Committee:

POSITION:

NAME:

ADDRESS:

Signature of nominator: _____

I accept the above nomination and will permit my name to be placed on the ballot for the position named.

Signature of nominee: _____

IMPORTANT

Do NOT enclose the above nomination form with your ballot.

The envelopes containing the ballots will not be opened until after the nominations are closed. Therefore, any nominations that are enclosed with a ballot will not be recorded.

Mail this nomination to:

Mr. N. Haughton
440 Rathburn Rd., Apt. 506
Etobicoke, Ontario
M9C 3S7

NOTE:
Nominations will also be accepted from the floor at the meeting.

LOADSTONE

By Sid Prior

Atchison Radio Mfg. Co.

Davison Haynes Mfg. Co.

Plymouth Radio Corp.

TIME DOES FLY

############

They tell me that as you grow older, time hangs heavy on your hands?
No way,here it is Sept. and it hardly no time since the 1976 A.W.A.Conference in Cananaigua N.Y. and here it is happening again,but this year we will be in DEARBORN,MICHIGAN at the Ford Museum and the Dearborn Inn.
The dates this year will be Oct.7,8,&9.
The Saturday meeting will be in the Theatre on the grounds of the Green field Village.
There will be ample time to see through the fabulious Museam.
One of the main attractions to me is the Flea Market to be held on the east parking lot of the Greenfield Village.
For the Ladies will be a visit to the new Fairlane Mall,so Girls take it easy on the Old Man's Pocket Book,HI.
As I say each year,go once you will go again and again regardless whaere ever it is. God willing I will be there so say HELLO.

##

READ over your June Bulletin and send your mail to the Offices designated.
DUES in October go to Jack Knott
69 ROSSBURN DR. ETOBICOKE ONT.CAN.
M 9 C 2 P 9

##

ONE OF THE FIRST OF THE RADIO SIGNALERS

SIR OLIVER LODGE *is one of the very earliest of the radio investigators. His frequent lectures in which he expounded the results of his experiments were sometimes a direct stimulus to other inventors. In 1894 he sent signals by the discharge of a Leyden jar and devised numerous receiving devices, among which were several types of coherers. Sir Oliver was one of the first to devise methods of tuning.*

THE INVENTOR OF THE SENSITIVE COHERER

BY *employing some of the same principles employed by David Hughes, a Frenchman,* EDOUARD BRANLY, *in 1890 devised a sensitive detector of radio waves. This instrument was called a "coherer" because the metallic particles used in it cohered or clung together under the influence of electromagnetic oscillations. This contact of the fine specks of metal allowed the passage of an electric current through them, whereby a signal could be recorded. Branly's device provided one of the first highly sensitive instruments for detecting electromagnetic waves and was somewhat like the device later employed by Marconi in his first radiotelegraph reception tests*

THE C.V.W.A. at the 1977 C.N.E.

This year Mike Cox our one and only Historian and Booth Designer was going to change the Exhibit to something new and beautiful ,but word from our building Superintendent Fred Brown put this idea on the shelf till 1978, due to the remodeling of the Crafts and Hobby Building where we are situated,for the 1978 100th.Aniversary of the Canadian National Exhib ion in old Toronto. The booth as it is,is very colorful,and the ehibits of sets is eye pleasing,but one gets tired of and old suit, and likewise a display booth.

So,watch out for next years display,its going to set Eatons and its rival Simpsons on their ears,we know as Mike is going to do it Hi.

73

SID

(Submitted by Aaron Solomon)

Crime Flashback

The Greatest Con Man Of All Time

by Max Haines

Now that Canada has the CN Tower, the tallest free-standing building in the world, we must be wary that some rascal doesn't sell it. In the world of swindlers and con men such a proposition is not altogether ridiculous.

Over the years con men have sold the Brooklyn Bridge, the Eiffel Tower, and one even rented out most of the state of Arizona.

Who was the most ridiculous con man of all time? Meet the undisputed champ — John Romulus Brinkley.

John didn't sell buildings or bridges. He sold something that man has been searching for through all recorded history — youth. For a price our hero would return the virility of youth. To use his own words, "you'll be back a kickin' and a scratchin' in no time."

In 1885 John first saw the light of day in Beta, a North Carolina hamlet of 200 dirt-poor farmers. When John was six his mother died of tuberculosis. Four years later he lost his father to the same disease.

By the time John was 16 he had outgrown Beta. The grass looked so much greener in Baltimore and he decided to try his luck in the big city.

John decided to start at the top. He applied for admission to John Hopkins Medical School. The dean of the school informed him that there were a few formalities which had to be met with before he could be admitted to the famous university. There was the minor matter of a grade school education, not to mention a high school diploma.

John felt these prerequisites were totally unfair and unwarranted. He sought out a school where, for a price and a minimum of study, he could obtain a medical degree of sorts.

He managed to acquire one of these watered down degrees from the Eclectic Medical University of Kansas City. While he was at it he managed to woo and win Sally Wilkie, a fair damsel from his home state of North Carolina.

Armed with a degree in one hand and winsome Sally in the other, John set up his practice in Fulton, Kansas.

Soon he and Sally were blessed with a baby daughter. After the birth of the child Sally found that she really wasn't crazy about John after all. In fact, when she thought about their relationship she discovered he was too despicable to live with. She asked him for a divorce, but John refused.

Apparently Sally's affection for her husband could be turned on in fits and starts. In the next few years they had two more daughters, and again she approached John for a divorce. This time he said good riddance and granted her her freedom.

John's practice had never really flourished. In fact, it consisted mainly of selling patent medicines. In the summer of 1910, while visiting in Memphis, John met and married one Minnie Jones. Now that he again had female companionship, he looked around for a town where he could make a buck. He and Minnie picked Milford, Kan., which had neither a doctor nor a hospital.

History is a little vague as to where John got the bright idea that the glands of a goat could be transplanted to male humans and rejuvenate their sexual drive and performance. The story goes that a farmer who had not been, shall we say, active for 16 long years, asked for the operation. John complied, and as luck would have it, the following year the farmer's wife gave birth to a baby boy.

Say what you will about John Romulus Brinkley, he recognized a good thing when he saw it. He tried the operation on a few willing relatives, and word soon got around Kansas that there was a doctor named

Brinkley who could restore love to your heart and put that old gleam back in your eye.

John's practice mushroomed — so much so that the scallywag actually built a 50 room hospital to accommodate his patients. Naturally it was called the John Brinkley Hospital.

Business became so lucrative that Doc Brinkley raised his price to $1,500 per operation. To give you an idea of the loot involved, Doc and his assistants were now performing 50 transplants per week.

There were a few practical problems. The railway had to build a new spur to Milford in order to take care of the goat supply being shipped into the town. Doc built a wing onto the hospital to house his staff of assistants and nurses.

By 1922 radio was coming into its own, and John immediately realized that the newfangled instrument held tremendous possibilities. Not one to do things half way, he built his own station, KFKB in Milford. He started to advertise his gland operation and as a result, had to double his hospital's capacity to accommodate 100 suckers a week.

John then stumbled on the idea of diagnosis by radio. The listener could write into KFKB and John would tell the sufferer what his or her trouble was and prescribe a remedy over the air. The idea was a hit. John produced the curses himself. Most of them consisted of different strength aspirin and castor oil.

The business became so popular that John designated a different number for the different strengths of his phony prescriptions: "Yes, Ma'am, Number 9 and Number 14 should fix you up in no time," his reasonant voice would reassure listeners of KFKB.

John accumulated a few trinkets along the way. He now had a Cadillac, a Lincoln, his own airplane, two yachts, and diamond rings more numerous than fingers. He had come a long way from Beta, N.C.

In the background there were some faint rumblings. The American Medical Association took a dim view of the goat business, but that association was nowhere near the powerful body it is today and didn't do that much to slow down John. A man from New Jersey died of tetanus after being rejuvenated, but John bought his way out of that particular scrape.

One day while vacationing in Florida, John told his startled wife, Minnie, that he needed a diversion. He thought he would try politics. "By gosh," John said, "I'll run for the governorship of Kansas." The final candidacy filling date had passed, so John had to run as a write-in candidate. To vote for him, one actually had to write his name on the ballot.

John campaigned with his airplane and his radio station. So great was his power and popularity, that our of 617,369 votes cast for the three candidates, John came in third with 183,178 votes. The winner of the election won by a miniscule 251 votes over the second place finisher. John had really thrown a scare into the political machines of the state, and he had accomplished it virtually alone.

John went back to selling his medicine with a vengeance. He built a strong radio station in Mexico, and for years raked in a fortune selling his medical miracles. Annoying pressures were brought to bear on him by the medical profession in the U.S., and he was finally forced to shift his main headquarters to Del Rio, Mexico. In order to avoid any minor discomforts John built himself a $200,000 home complete with pool.

Still, the handwriting was on the wall. Throughout the late 1930's the public was becoming more informed, and the governing medical and radio authorities were gaining more control in policing their professions. Despite the tremendous revenue he was generating, the Mexican government forced him to close down the radio station.

The American Medical Association publicly branded him a quack. An indignant John sued them for libel. The jury found the Medical Association innocent, and in fact, thought the word quack properly described the particular brand of medicine John was dispensing.

Several men who weren't all that rejuvenated by their goat transplants brought judgments against John. He constantly had to pay damages to satisfy these judgments and little by little he was divested of the trappings of wealth. First the plane went, then the yacht and cars, and finally his home.

In 1941 Brinkley declared himself bankrupt. It is estimated that over 200,000 gullible people were bilked out of $10 million by John's various schemes.

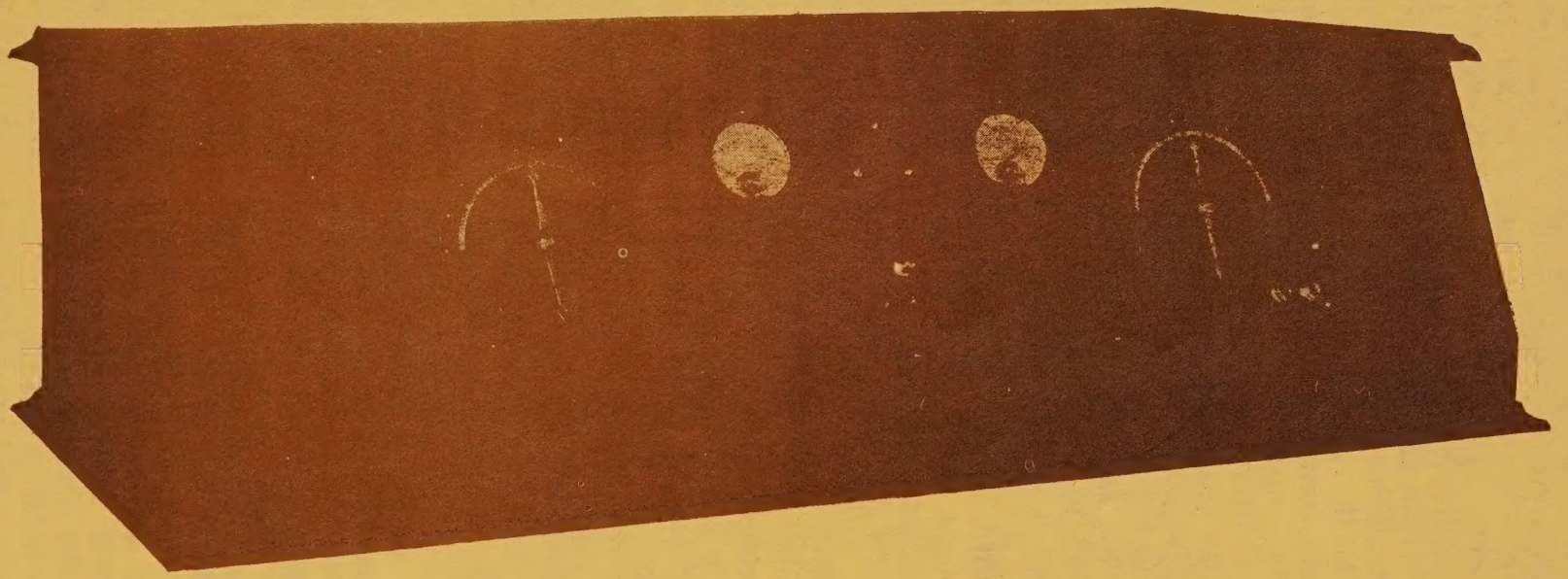
John never fully recovered from the disgrace of bankruptcy. In May, 1942, at the age of 56 he dropped dead of a heart attack.

IMPERIAL MODEL — UNIVERSAL SUPER 8

CHARLES R. LEUTZ'S "MYSTERY SET"

"The Universal Super-8 Imperial, is one ra lio among all—which contains in the greatest measure the essentials of dependable, economical and luxurious radio reception."

Wavelength Range 35 meters to 3600 meters with extra transformers



Selective
Sensitive
Simple
Tuning
Substantial
Beautiful

Fig. 27
UNIVERSAL SUPER-8 IMPERIAL MODEL

Cabinet, Solid African Mahogany, Piano Finish, Hand Carved, size, 42″ x 12″ high x 20″ deep. Two tone; side compartments 12″ x 4″ provided for "B" current supply or "B" batteries. Panel, Genuine Black Bakelite 28 3/16″ x 8″ x ¼″, grained to Satin Finish and Gorton Machine Engraved, white filling. Weston meters and meter switch provided to read A and B voltages and current. Positive geared Verniers supplied on both main tuning controls. "Non-Blurring" stationary dials and movable pointers for recording calibrations. All control knobs solid moulded Bakelite. Sealed tube shelf construction guaranteeing protection against moisture and dust for a lifetime.

Price includes tubes and "B" supply units, but not the "A" battery or loud speaker.

IMPERIAL MODEL UNIVERSAL SUPER-8 Code Word, "BORDEAUX" Price, $460.00

Export Packing, $10.00 Extra, Net.